

**The Commonwealth of Massachusetts**

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RETURN

OF THE

NANTUCKET ELECTRIC COMPANY

TO THE

DEPARTMENT OF PUBLIC UTILITIES

OF MASSACHUSETTS

**For the Year Ended December 31,  
2022**

**Supplemental Data  
Electric Energy Burden Analysis**

Name of officer to whom  
correspondence should be

addressed regarding this report: Michael Dixon

Official Title: VP, U.S. Controller

Signature: 

Office address: 2 Hanson Place, Brooklyn, NY 11217

**Nantucket Electric Company**  
**Electric Energy Burden Analysis - 2022**

As directed by the Department of Public Utilities (the “Department”), in its Memorandum on Annual Returns to Include Utility Burden Index Analysis, dated February 9, 2023, the following chart provides a detailed household economic burden index analysis (“Burden Analysis”) evaluating residential energy electric utility customer bills as percentages of household income by county. The Burden Analysis provides the summary results of a detailed household burden index analysis by census block group, which is based on the total customer bill that includes net metering from solar, low-income discounts, and other bill impact factors.

The Burden Analysis further provides an analysis by household income for the statewide median household income and 50 percent, 100 percent, and 200 percent of the Federal Poverty Guidelines, to provide the Department with a clearer picture of specific areas in the Company’s service territory with higher-than-average energy burden.

For its analysis, the Company engaged a third party to geocode its customers and append census level identifiers and related information. The Company then summarized its billing data to yield average bills by the census identifiers to conduct the Burden Analysis. The Company, furthermore, intends to use this information to develop more advanced and meaningful strategies to enhance customer engagement and support.

## Household Economic Burden Index Analysis 2022

Field	Description
Census Block ID	The Census defined geographic ID for the block group.
Census Block Label	Text label from Census American Community Survey (ACS) tables describing the block group, linked up with frequently used political type boundaries.
County	Determined based on the Census Block Label.
Municipality(ies)	The towns associated with the block group; as some block groups span multiple towns in rural areas and odd large commercial areas like Logan Airport, included those multiple towns designated with a "," in the string.
Electric Utility	Service in the block group per geolocated account addresses from the 2021 active customer population. Some cases marked as Split where multiple Utilities provide service.
Census Block Group Median Income	The median income for the block group as reported by the 5 year ACS for the 2021 ACS cycle.
Census Block Group Households	The block group estimated households from the ACS data.
Census Tract Median Income	The median income for the census tract ID. This repeats and cannot be summed vertically. Provided as an alternative grain for census block groups where the number of households was too small for ACS to report out median income.
Census Tract Households	The ACS estimated number of households for the census tract ID. This repeats and cannot be summed vertically. Provided as an alternative grain for census block groups where the number of households was too small for ACS to report out median income.
Census Block/Tract Level Median Income	The Census block group median income except in cases where the number of households was too small at the Census block level for ACS to report in which case the tract level income was used as a proxy.
Statewide Median Income	The state's 5 year median income is 89,026 from <a href="https://www.census.gov/quickfacts/fact/table/MA/INC110221">https://www.census.gov/quickfacts/fact/table/MA/INC110221</a> .
50% of Poverty	50% percent of a federal poverty level of \$26,500 for a family of 4: <a href="https://www.mass.gov/doc/cold-relief-brochure/download">https://www.mass.gov/doc/cold-relief-brochure/download</a>
100% of Poverty	100% percent of a federal poverty level of \$26,500 for a family of 4: <a href="https://www.mass.gov/doc/cold-relief-brochure/download">https://www.mass.gov/doc/cold-relief-brochure/download</a>
200% of Poverty	200% percent of a federal poverty level of \$26,500 for a family of 4: <a href="https://www.mass.gov/doc/cold-relief-brochure/download">https://www.mass.gov/doc/cold-relief-brochure/download</a>
Electric Households included in Average Bill Calculation	Number of households included in the average electric bill analysis for the purposes of providing accurate county level data.
Average Annual Electric Bill	Average annual electric bill at the Census block level.
Electric Energy Burden based on Census Median Income	Electric energy burden calculated as the average electric bill compared to the median income at a Census block group or tract level.
Electric Energy Burden based on Statewide Median Income	Electric energy burden calculated as the average electric bill compared to the Statewide median income.
Electric Energy Burden based on 50% of Poverty	Electric energy burden calculated as the average electric bill compared to an income at 50% of the federal poverty level in a 4 person household.
Electric Energy Burden based on 100% of Poverty	Electric energy burden calculated as the average electric bill compared to an income at 100% of the federal poverty level in a 4 person household.
Electric Energy Burden based on 200% of Poverty	Electric energy burden calculated as the average electric bill compared to an income at 200% of the federal poverty level in a 4 person household.

## Household Economic Burden Index Analysis 2022

<b>County</b>	<b>County Level Median Income</b>	<b>Average Annual Electric Bill</b>	<b>Electric Energy Burden based on Census Median Income</b>	<b>Electric Energy Burden based on Statewide Median Income</b>	<b>Electric Energy Burden based on 50% of Poverty</b>	<b>Electric Energy Burden based on 100% of Poverty</b>	<b>Electric Energy Burden based on 200% of Poverty</b>
Nantucket	\$ 109,162	\$ 2,684	2.5%	3.0%	20.3%	10.1%	5.1%

**Household Economic Burden Index Analysis  
2022**

Census Block ID	Census Block Label	County	Municipality(ies)	Electric Utility	Census Block Group Median Income	Census Block Group Households	Census Tract Median Income	Census Tract Households	Block/Tract Level Median Income	Electric Households Included in Average Bill Calculation	Average Annual Electric Bill	Electric Energy Burden based on Census Median Income	Electric Energy Burden based on Statewide Median Income	Electric Energy Burden based on 50% of Poverty	Electric Energy Burden based on 100% of Poverty	Electric Energy Burden based on 200% of Poverty
250199501001	Block Group 1, Census Tract 9501, Nantucket County	Nantucket	NANTUCKET	National Grid	\$ 92,891	485	\$ 106,029	668	\$ 92,891	1629	\$ 2,433	2.6%	2.7%	18.4%	9.2%	4.6%
250199501002	Block Group 2, Census Tract 9501, Nantucket County	Nantucket	NANTUCKET	National Grid	\$ 119,821	183	\$ 106,029	668	\$ 119,821	1639	\$ 2,610	2.2%	2.9%	19.7%	9.8%	4.9%
250199502011	Block Group 1, Census Tract 9502.01, Nantucket County	Nantucket	NANTUCKET	National Grid	\$ 64,561	451	\$ 126,500	1,102	\$ 64,561	831	\$ 2,348	3.6%	2.6%	17.7%	8.9%	4.4%
250199502012	Block Group 2, Census Tract 9502.01, Nantucket County	Nantucket	NANTUCKET	National Grid	\$ 151,705	651	\$ 126,500	1,102	\$ 151,705	886	\$ 2,555	1.7%	2.9%	19.3%	9.6%	4.8%
250199502021	Block Group 1, Census Tract 9502.02, Nantucket County	Nantucket	NANTUCKET	National Grid	\$ 47,350	531	\$ 88,021	881	\$ 47,350	754	\$ 2,507	5.3%	2.8%	18.9%	9.5%	4.7%
250199502022	Block Group 2, Census Tract 9502.02, Nantucket County	Nantucket	NANTUCKET	National Grid	\$ 137,364	350	\$ 88,021	881	\$ 137,364	656	\$ 2,709	2.0%	3.0%	20.4%	10.2%	5.1%
250199503071	Block Group 1, Census Tract 9503.07, Nantucket County	Nantucket	NANTUCKET	National Grid	\$ 93,580	215	\$ 93,580	215	\$ 93,580	1036	\$ 2,990	3.2%	3.4%	22.6%	11.3%	5.6%
250199504001	Block Group 1, Census Tract 9504, Nantucket County	Nantucket	NANTUCKET	National Grid	\$ 115,455	396	\$ 129,625	685	\$ 115,455	1123	\$ 2,699	2.3%	3.0%	20.4%	10.2%	5.1%
250199504002	Block Group 2, Census Tract 9504, Nantucket County	Nantucket	NANTUCKET	National Grid	\$ 174,464	289	\$ 129,625	685	\$ 174,464	726	\$ 2,367	1.4%	2.7%	17.9%	8.9%	4.5%
250199505001	Block Group 1, Census Tract 9505, Nantucket County	Nantucket	NANTUCKET	National Grid	\$ 116,917	141	\$ 115,667	480	\$ 116,917	1400	\$ 2,514	2.2%	2.8%	19.0%	9.5%	4.7%
250199505002	Block Group 2, Census Tract 9505, Nantucket County	Nantucket	NANTUCKET	National Grid	.	339	\$ 115,667	480	\$ 115,667	1127	\$ 3,729	3.2%	4.2%	28.1%	14.1%	7.0%